

SECTION 02750 – STORM SEWER TELEVISION

PART 1 - GENERAL

1.1 GENERAL

- A. This section covers all work necessary for the cleaning and televising of storm sewers, and all subsurface drains to determine the watertightness, connections, alignment, grades and locations of service.
- B. The type of equipment required for the work and the methods of accomplishing the work, as well as the type of materials to be incorporated into the work, are covered in this Section.
- C. **Prior to televising, all storm sewer pipe and subsurface drains shall be cleaned via a water jetting method.** The Contractor shall introduce enough water into sewer pipe to indicate bellies or sags in line being televised. Said water shall be placed after the line has been cleaned and prior to televising. Televising while cleaning shall not be permitted.
- D. All cleaning and televising shall be performed after all underground utilities are installed; including but not limited to gas, electric, phone, and cable.

PART 2 - PRODUCTS

2.1 EQUIPMENT REQUIRED

- A. The Contractor shall furnish all labor, electronic equipment, and technicians to perform the closed circuit television inspection of the sewers. Operation of the equipment is to be controlled from above ground with a skilled technician at the control panel in the television studio, controlling the movement of the television camera through the sewer in either direction.
- B. The color television camera shall be one specifically designed and constructed for the purpose of televising sewers. The color camera shall have a high resolution lens capable of spanning 360 degrees circumference and 270 degrees on horizontal axis to televise sewer lines 6 inches in diameter and larger. Focal distance shall be adjustable through a range of 1 inch to infinity. The purpose of the rotating head camera is to view all service connections and to locate all defects, as well as any questionable problem areas. The camera shall be mounted to a self-propelled crawler/transporter.

- C. Camera lighting quality shall be suitable to provide a clear, continuously in focus picture of the entire inside periphery of the sewer pipe for all conditions encountered during the work. The camera shall be able to operate efficiently in 100% humidity conditions. The camera, television monitor, and all other necessary components of the video system shall be capable of producing a minimum 350-line resolution color video picture.
- D. The view seen by the television camera shall be transmitted to a color monitor of not less than 17 inches and to a DVD, thumb drive, or other type of portable storage approved by the Utility, WPWD Inspectors, and/or designee. The TV camera shall have the capability of transmitting a color picture with no less than 600 lines of resolution, the monitor shall have the capability of receiving the same. The monitor shall be located inside a mobile TV studio.
- E. Contractor shall supply digital video to client on to a DVD, thumb drive, or other type of portable storage approved by the Utility, WPWD Inspectors and/or designee:
 - 1. Minimum 640 x 480 pixel dimension
 - 2. Minimum 24 fps (frames per second)
 - 3. Indexed chapters to allow instant access to points of observation
 - 4. Cross-platform compatible to allow for viewing on any operating system
- F. The Contractor's mobile studio shall be large enough to accommodate up to three people for the purpose of viewing the monitor while the inspection is in progress. The Utility, WPWD Inspectors, or designee shall have access to view the television screen at all times.
- G. The Contractor will provide one clear copy of the video/television inspection to the Utility, WPWD Inspectors and/or designee with complete log sheets.
- H. The technician will provide text input at the time of inspection pointing out cracks, root intrusion, broken tile, infiltration and any other items pertinent to the evaluation of the sewer line.
- I. Upon completion of all sewer inspection, the Contractor shall furnish to the Utility, WPWD Inspectors, or designee a hard copy of a computerized report. This report will be generated by an onboard computer and printer and will provide commentary. The report will describe all other pertinent findings regarding service connections, breaks or cracks in pipes, bellies or sags, infiltration, and other items of interest.

- J. Storm sewer and subsurface drain inspection videos, logs, and reports shall be done on separate media and submitted separately.

PART 3 - EXECUTION

Not Applicable

PART 4 – FIGURES

Not applicable

END OF SECTION 02750